AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Currently Amended) A method for provisioning a digital subscriber line (DSL) service for a subscriber in a telecommunications network, the method comprising:

receiving a service order at a provisioning server, the service order requesting implementation of the DSL service and comprising provisioning data;

~~assigning~~ identifying a plurality of facilities assigned to implement the service order based on the provisioning data, the plurality of facilities comprising at least a remote terminal connectable to a terminal of the DSL subscriber;

determining an interface corresponding to each of the plurality of assigned facilities, each interface converting at least a portion of the provisioning data into a specific protocol corresponding to the assigned facility; and

configuring each of the plurality of facilities, using the corresponding interface, to implement the service order based on the provisioning data.

2. (Original) The method for provisioning a DSL service according to claim 1, further comprising:

determining at least one path interconnecting the plurality of facilities and a subscriber port of the remote terminal, the subscriber port being configured to connect with the DSL subscriber terminal.

3. (Original) The method for provisioning a DSL service according to claim 2, further comprising:

determining and implementing a cross-connection in at least one of the plurality of facilities to enable the at least one path interconnecting the plurality of facilities and the subscriber port.

4. (Original) The method for provisioning a DSL service according to claim 3, further comprising:

storing configuration data in a system database, the configuration data comprising data identifying the plurality of facilities assigned to implement the service order, the at least one path interconnecting the plurality of facilities and the subscriber port of the remote terminal, and the cross-connection in the at least one of the plurality of facilities.

5. (Original) The method for provisioning a DSL service according to claim 1, wherein the provisioning data is derived based on the provisioning data indication in the service order.

6. (Original) The method for provisioning a DSL service according to claim 1, wherein the service order indicates the provisioning data by at least one of providing the provisioning data and providing a profile identification that corresponds to parameters that define the DSL service.

7. (Original) The method for provisioning a DSL service according to claim 1, further comprising:

determining whether the service order comprises erroneous data; and

when the service order is determined to comprise erroneous data, displaying at a graphical user interface an error message, which identifies the erroneous data, and receiving input from the graphical user interface to correct the erroneous data.

8. (Previously Presented) A method for provisioning a digital subscriber line (DSL) service in a telecommunications network for a subscriber, the method comprising:

receiving a service order at a common server, requesting set up of the DSL service;

converting the service order into provisionable steps;

determining facility assignment data related to each of a plurality of facilities needed to implement the provisionable steps, the facility assignment data comprising identification of at least a remote terminal and a subscriber port, connectable to a terminal of the DSL subscriber, and an optical concentrator device connectable to the remote terminal;

determining an interface for each of the plurality of facilities, each interface enabling communication with the corresponding one of the plurality of facilities; and

configuring each of the plurality of facilities to implement the service order based on instructions communicated from the common server to each of the plurality of facilities using the corresponding interface.

9. (Original) The method for provisioning a DSL service according to claim 8, further comprising:

formatting data from the service order into a common internal format prior to converting the service order into provisional steps.

10. (Original) The method for provisioning a DSL service according to claim 8,

further comprising:

validating an intent of the service order with respect to a state of a port of the remote terminal associated with the DSL subscriber and provisioning the service order in the remote terminal upon successful validation.

11. (Original) The method for provisioning a DSL service according to claim 8, further comprising:

identifying errors related to at least one of the service order and the provisioning of the DSL service; and

displaying information regarding the errors at a graphical user interface, the graphical user interface being configured to enable a user to analyze and respond to the errors.

12. (Original) The method for provisioning a DSL service according to claim 8, the configuring each of the plurality of facilities to implement the service order comprising one of building, deleting or changing at least one virtual path over an optical fiber connection between the remote terminal and the optical concentrator device.

13. (Original) The method for provisioning a DSL service according to claim 12, the building of at least one virtual path over an optical fiber connection between the remote terminal and the optical concentrator device comprising:

providing a network-side port at the remote terminal configured to connect with the subscriber port;

communicating to the optical concentrator device the identity of the network-side

port; and

configuring the optical concentrator device to support the virtual path to the network-side port of the remote terminal.

14. (Original) The method for provisioning a DSL service according to claim 12, the deleting of at least one virtual path over an optical fiber connection between the remote terminal and the optical concentrator device comprising:

disconnecting a network-side port at the remote terminal from the subscriber port;

communicating to the optical concentrator device the identity of the network-side port; and

configuring the optical concentrator device to delete support of the virtual path to the network-side port of the remote terminal.

15. (Original) The method for provisioning a DSL service according to claim 8, the configuring each of the plurality of facilities to implement the service order comprising one of building, deleting or changing at least one cross-connection in at least one of the plurality of facilities.

16. (Previously Presented) The method for provisioning a DSL service according to claim 8, further comprising:

enqueuing the provisionable steps after determining the facility assignment data related to each of a the plurality of facilities needed to implement the provisionable steps; and

sequentially dequeuing the provisionable steps for implementation on a scheduled

provisioning date, prior to determining the interface for each of the plurality of facilities.

17. (Original) The method for provisioning a DSL service according to claim 8, further comprising:

receiving service profile data related to at least one service from a service provider, the service profile data comprising at least one parameter related to the service order;

storing the service profile data in a system database; and

configuring each of the plurality of facilities to implement the service order additionally based on the service profile data.

18. (Currently Amended) A system for provisioning a digital subscriber line (DSL) service in a telecommunications network, the system comprising:

a provisioning server that receives a service order for implementing the DSL service;

a plurality of network facilities connectable to the server; and

a system database that stores the service order and a plurality of interface identifiers for interfaces corresponding to the plurality of network facilities;

wherein the provisioning server assigns determines provisioning facilities, from among the plurality of network facilities needed, assigned to implement the service order, the provisioning facilities comprising at least one remote terminal, connectable to a terminal of a subscriber of the DSL service; and

wherein the provisioning server directs configuration of each of the provisioning facilities, using at least one of the interface identifiers retrieved from the system database corresponding to each of the provisioning facilities, enabling communication with the

provisioning facilities, to implement the DSL service based on the service order.

19. (Original) The system for provisioning a DSL service according to claim 18, the remote terminal comprising a subscriber port, the subscriber port being configured to connect with a DSL subscriber terminal, wherein the server enables at least one path interconnecting the plurality of facilities and the subscriber port of the remote terminal.

20. (Original) The system for provisioning a DSL service according to claim 19, wherein the at least one of the remote terminal and the optical concentrator device determine and implement a cross-connection to enable the at least one path interconnecting the plurality of facilities and the subscriber port.

21. (Original) The system for provisioning a DSL service according to claim 20, the system database comprising configuration data that identifies the plurality of facilities assigned to implement the service order, the at least one path interconnecting the plurality of facilities and the subscriber port of the remote terminal, and the cross-connection in the at least one of the plurality of facilities.

22. (Original) The system for provisioning a DSL service according to claim 18, further comprising:

a graphical user interface connected to the server and configured to interface with the server, the system database and at least one of the plurality of network elements.

23. (Original) The system for provisioning a DSL service according to claim 22, wherein, when the service order comprises erroneous data, the graphical user interface displays an error message, which identifies the erroneous data, and receives input from an

operator in response to the erroneous data.

24. (Previously Presented) A system for provisioning a digital subscriber line (DSL) service in a telecommunications network, the system comprising:

a service order entry system that receives a service order for the DSL service from a DSL service provider;

a server that receives the service order from the service order entry system;

a plurality of network facilities connectable to the server and a terminal of a subscriber of the DSL service;

a facility inventory system connected to the server that stores facility information regarding each of the plurality of network facilities, the facility information comprising a type, a location and an availability of each of the plurality of network facilities; and

a system database connected to the server that stores data relating to the service order and a plurality of interfaces corresponding to the plurality of network facilities, the plurality of interfaces enabling communication with the plurality of network facilities;

wherein the server communicates with the facility inventory system to determine provisioning facilities from among the plurality of network facilities needed to implement the DSL service based on the service order, the provisioning facilities comprising at least one remote terminal having a subscriber port and at least one optical concentrator device, the remote terminal being connectable to the optical concentrator device via an optical fiber line; and

wherein the server directs configuration of each of the provisioning facilities using a

corresponding one of the plurality of interfaces retrieved from the system database to implement the DSL service.

25. (Original) The system for provisioning a DSL service according to claim 24, further comprising:

a graphical user interface connectable to the server that enables interaction by a network operator with at least one of the server, the plurality of network facilities and the system database.

26. (Original) The system for provisioning a DSL service according to claim 25, wherein the server identifies errors related to at least one of the service order and the provisioning of the DSL service; and

wherein information regarding the errors is displayed at the graphical user interface and error responses are sent from the graphical user interface to the server.

27. (Original) The system for provisioning a DSL service according to claim 24, wherein the configuration of each of the provisioning facilities, using a corresponding one of the plurality of interfaces retrieved from the system database to implement the service order, comprises one of building, deleting or changing at least one virtual path over the optical fiber connection between the remote terminal and the optical concentrator device.

28. (Original) The system for provisioning a DSL service according to claim 27, wherein the building of at least one virtual path over the optical fiber connection between the remote terminal and the optical concentrator device comprises:

providing a network-side port at the remote terminal configured to connect with the

subscriber port;

communicating to the optical concentrator device the identity of the network-side port; and

configuring the optical concentrator device to support the virtual path to the network-side port of the remote terminal.

29. (Original) The system for provisioning a DSL service according to claim 27, wherein the deleting of at least one virtual path over the optical fiber connection between the remote terminal and the optical concentrator device comprises:

disconnecting a network-side port at the remote terminal from the subscriber port;

communicating to the optical concentrator device the identity of the network-side port; and

configuring the optical concentrator device to delete support of the virtual path to the network-side port of the remote terminal.

30. (Original) The system for provisioning a DSL service according to claim 24, further comprising an interface configured to connect a graphical user interface of the DSL service provider with the server;

wherein the system database stores service profile data related to at least one service of the DSL service provider, the service profile data comprising at least one parameter related to the service order; and

wherein provisioning facilities are configured to implement the service order additionally based on the service profile data.

31. (Currently Amended) A computer readable medium for storing a computer program executed by a provisioning server that provisions a digital subscriber line (DSL) service in a telecommunications network, the computer readable medium comprising:

a receiving ~~source~~ code segment ~~that receives~~ for receiving a service order requesting implementation of the DSL service;

~~an assigning source~~ a facility assignment code segment ~~that assigns~~ for determining a plurality of facilities ~~needed~~ assigned to implement the service order based on provisioning data indicated by the service order, the plurality of facilities comprising at least a remote terminal connectable to a terminal of a DSL subscriber and an optical concentrator device connectable to the remote terminal;

a determining ~~source~~ code segment ~~that determines~~ for determining an interface corresponding to each of the plurality of facilities, each interface converting the service order data into a specific protocol corresponding to the assigned facility; and

a configuring ~~source~~ code segment ~~that configures~~ for configuring each of the plurality of facilities, using the corresponding interface, to implement the DSL service based on the service order.

32. (Currently Amended) The computer readable medium for storing the computer program according to claim 31 further comprising:

a path determining ~~source~~ code segment ~~that determines~~ for determining at least one path interconnecting the plurality of facilities and a subscriber port of the remote terminal, the subscriber port being configured to connect with the DSL subscriber terminal.

33. (Currently Amended) The computer readable medium for storing the computer program according to claim 32 further comprising:

a cross-connection determining ~~source~~ code segment ~~that determines~~ for determining and ~~implements~~ implementing a cross-connection in at least one of the plurality of facilities to enable the at least one path interconnecting the plurality of facilities and the subscriber port.

34. (Currently Amended) The computer readable medium for storing the computer program according to claim 33 further comprising:

a ~~memory source~~ storing code segment ~~that stores~~ for storing configuration data in a system database, the configuration data comprising data identifying the plurality of facilities assigned to implement the service order, the at least one path interconnecting the plurality of facilities and the subscriber port of the remote terminal, and the cross-connection in the at least one of the plurality of facilities.

35. (Previously Presented) The computer readable medium for storing the computer program according to claim 31 wherein the provisioning data is derived based on the provisioning data indication in the service order.

36. (Previously Presented) The computer readable medium for storing the computer program according to claim 31 wherein the service order indicates the provisioning data by at least one of providing the provisioning data and providing a profile identification that corresponds to parameters that define the DSL service.

37. (Currently Amended) The computer readable medium for storing the computer

program according to claim 31 further comprising:

an error detection ~~source~~ code segment ~~that determines~~ for determining whether the service order comprises erroneous data and, when the service order is determined to comprise erroneous data, ~~initiates display~~ for displaying an error message at a graphical user interface ~~of an error message~~, which identifies the erroneous data, and ~~receives~~ for receiving input from the graphical user interface to correct the erroneous data.

38. (Currently Amended) A computer readable medium for storing a computer program that provisions a digital subscriber line (DSL) service in a telecommunications network, the computer readable medium comprising:

a receiving ~~source~~ code segment ~~that receives~~ for receiving a service order at a common server via a service order entry system, the service order requesting that the DSL service be set up for a DSL subscriber;

a converting ~~source~~ code segment ~~that converts~~ for converting the service order into provisionable steps;

a facility assignment ~~source~~ code segment ~~that determines~~ for determining facility assignment data related to each of a plurality of facilities needed to implement the provisionable steps, the facility assignment data comprising identification of at least a remote terminal and a subscriber port, connectable to a terminal of the DSL subscriber, and an optical concentrator device connectable to the remote terminal;

an interface determining ~~source~~ code segment ~~that determines~~ for determining an interface for each of the plurality of facilities, each interface enabling communication with

the corresponding one of the plurality of facilities; and

a configuring ~~source~~ code segment ~~that configures~~ <u>for configuring</u> each of the plurality of facilities to implement the service order based on instructions communicated from the common server to each of the plurality of facilities using the corresponding interface.